

WHAT I CLAIM MY INVENTION IS:

- [29] 1. Controlled windshield heating air space is designed to retain heated air in an isolated area adjacent to an automobile windshield internal surface; thus temperature of said controlled windshield heating air space can be maintained independently without interfering normal temperature inside automobile passenger compartment.
- [30] 2. A windshield heating air appliance is made of transparent materials such as plastic that are unbreakable during an automobile crash; said windshield, and said windshield heating air appliance together assembly said controlled windshield heating air space in accordance with claim 1.
- [31] 3. Using heated air supply from either existing dashboard windshield air vent or a separate windshield heated air supply outlet, said controlled windshield heating air space in accordance with claim 1 keeps said windshield internal surface at an optimal temperature; adjacent air in contact with said heated windshield internal surface maintains its ability to retain moisture; thus prevents fogging of said windshield, guarantees excellent driving visibility through said windshield, reduces traffic accidents in a wet or cold climate.
- [32] 4. Said controlled windshield heating air space in accordance with claim 1 and claim 2 is less than 1% of entire automobile passenger compartment, melting ice accumulated on said windshield requires only heating up said controlled windshield heating air space instead of said entire automobile passenger compartment, this significantly increases windshield heating efficiency, speeds up ice melting, saves energy, and reduces pollution.
- [33] 5. A front side window cover is made of transparent materials such as plastic; since air is a poor thermal conductor, air temperature between a front side window and said front side window cover is higher than said front side window temperature in a wet or cold climate; an additional insulation layer, formed by said front side window cover and air between said front side window and said front side window cover, enhances said front side window insulation, keeps said front side window cover temperature close to automobile internal compartment temperature; this significantly reduces fogging of said front side window, enhances driving safety in a wet or cold climate.